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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,678	11/25/2003	Timothy R. Taylor	577-511 DIV	8870
23869	7590	10/13/2004	EXAMINER	
HOFFMANN & BARON, LLP 6900 JERICHO TURNPIKE SYOSSET, NY 11791			NGUYEN, VINCENT Q	
			ART UNIT	PAPER NUMBER
			2858	

DATE MAILED: 10/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/723,678

Applicant(s)

TAYLOR, TIMOTHY R.

Examiner

Vincent Q Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 31-45 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 31-33 is/are rejected.
- 7) ☒ Claim(s) 38-45 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/25/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 31-37, are rejected under 35 U.S.C. 102(b) as being anticipated by Miller et al. (4,016,492).

Regarding claim 1, Levin et al. discloses a method for determining a phase angle relationship between capacitive test points, comprising the steps of (Figure 1) receiving a first waveform (From probe A) indicating the presence of a voltage at first capacitive test point (Capacitive test point is any test point probe A attached to receive signal since receive signal at capacitive test point or any test point does not require the system to change function or to reconfigure); receiving a second waveform. (From probe B) indicating the presence of a voltage at a second capacitive test point (Capacitive test point is any test point probe B attached to receive signal since receive signal at capacitive test point or any test point does not require the system to change function or to reconfigure); comparing the first and second waveforms with respect to time (Column 3, lines 3-18); measuring a phase angle difference between the first and the second waveforms (Column 5, lines 53-59); and determining the phase angle relationship

between the first and the second capacitive test points based on said phase angle difference (Column 5, lines 60-69).

Regarding claim 32, Miller et al. discloses the step of displaying the phase angle relationship between the first and second capacitive test points (Figure 3).

Regarding claims 33, 34, Miller et al. discloses the step of determining whether the voltages at the first and the second capacitive test points are in phase (Looking at the phases displayed in figure 3, one can determine whether the signals are in phase or out phase).

Regarding claims 35, 36, Miller discloses the phase angle difference is independent of voltage values at the first and second points (Figure 3).

3. Claim 37 is rejected under 35 U.S.C. 102(b) as being anticipated by Levin et al. (4,316,254).

Regarding claim 37, Levin discloses a device comprising (figure 1) a first amplifier (24) having an input and output, including a first resistor (601) (Figure 12) connected to the input of the first amplifier for providing a low input impedance at the first amplifier, a first voltage channel (Through line 32) connected to the input of the first amplifier for receiving first voltage signal from a first capacitive test point; a second amplifier (44) having an input and output, including a second resistor connected to the input of the second amplifier for providing a low input impedance at the second amplifier (Levin et al. does not explicitly disclose but such a resistor is included in any prior art of amplifier including the prior art of Levin since the gain of amplifier depends to the input

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resistor; the gain of inverting amplifier, for example, defines as: $A = -R_2/R_1$, whereas R_1 is input resistor and R_2 is output resistor); a second voltage channel (Through cable 13) connected to the input of the second amplifier (44) for receiving second voltage signal from a second capacitive test point; a power on self-tester (48) coupled to send test voltage signals to the first and second amplifiers (24, 44) for testing the functionality of the apparatus; a first output voltage signal received from the output of the first amplifier (24); a second output voltage signal received from the output of the second amplifier (44); a phase detector (26) coupled to receive the first and second output voltage signals, wherein the phase detector (Figure 13) determines a phase angle difference between the first and the second output voltage signals, a state detector (Figure 14) coupled to receive the first and second output voltage signals; and a switch (701) connected to the state detector.

Allowable Subject Matter

4. Claims 38-45 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

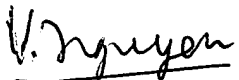
Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent Q Nguyen whose telephone number is (571) 272-2234. The examiner can normally be reached on 8:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, N. Le can be reached on (571) 272-2233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



October 12, 2004

Vincent Q Nguyen
Patent Examiner
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